

### ABSTRACT OF THE DISCLOSURE

Stand-alone multiple gas analysis apparatus, of relatively small physical size, integrates one or more supplemental sensors, such as a self-heating, amperometric, limiting current-type oxygen sensor and/or a titania nanotube-type hydrogen sensor, into the sampling cell gas flow components of an FT-IR gas analyzer. The apparatus enables simultaneous quantitative concentration measurements of infrared-active gases and of infrared-inactive atomic species and homonuclear diatomic molecules, such as of oxygen and hydrogen.